



ITDE-PACD180US

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appln. No: 09/921,677
Applicant: Lee P. Noehring et. al.
Filed: August 3, 2001
Title: APPARATUS AND METHOD FOR RESOLVING SECURITY
ASSOCIATION DATABASE UPDATE COHERENCY IN HIGH-
SPEED SYSTEMS HAVING MULTIPLE SECURITY CHANNELS
TC/A.U.: 2163
Examiner: H.B. Thai
Confirmation No.: 8166
Notice of Appeal Filed: November 17, 2006
Docket No.: ITDE-PACD180US

AMENDED APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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S I R :

Appellants have now filed an amended Appeal Brief, in response to the Notification of Non-Compliant Appeal Brief dated March 22, 2007. This Brief is presented in the format required by 37 C.F.R. § 41.37, in order to facilitate review by the Board.

A one month extension fee required in connection with the filing of this Amended Brief is provided herewith.

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I. Introduction

This is an Appeal Brief under 37 C.F.R. § 41.37 appealing the rejections set forth in the Office Action dated May 19, 2006. Each of the topics required by 37 C.F.R. § 41.37 is presented in this Brief and is labeled appropriately.

II. Real Party in Interest

ITT Manufacturing Enterprises, Inc. ("ITT") of Wilmington, Delaware is the real party in interest of the present application.

When this Appeal Brief was filed, Corrent Corporation ("Corrent") was the real party in interest of the present application. An assignment of all rights in the present application to Corrent was executed by the inventors and recorded by the U.S. Patent and Trademark Office at **Reel 012061, Frame 0464**. Corrent has now assigned all its interest in the present application to ITT. The assignment of the present application from Corrent to ITT has not yet been recorded by the U.S. P.T.O.

III. Related Appeals and Interferences

There are no appeals or interferences related to the present application of which Appellant is aware.

IV. Status of Claims

1. Total Number of Claims in Application

The claims in the application are: 1-35

2. Status of all the Claims in Application

- a. Claims cancelled: 1-9 and 19-34
- b. Claims withdrawn from consideration but not cancelled: None
- c. Claims pending: 10-18 and 35
- d. Claims allowed: None

e. Claims rejected: 10-18 and 35

f. Claims objected to: None

3. **Claims on Appeal**

The Claims on appeal are: 10-18 and 35

V. Status of Amendments

Following a final Office Action, dated January 4, 2006, Appellant filed a response on March 27, 2006, requesting reconsideration of the rejection of Claims 10-18 and 35. In response to this request, an Advisory Action was issued on April 7, 2006, reiterating the previous ground of rejection. Appellant then filed a Request for Continued Examination (RCE) on April 28, 2006. The Examiner issued a non-final Office action on May 19, 2006, reiterating the previous rejections. Appellant then filed a Notice of Appeal on November 17, 2006.

VI. Summary of Claimed Subject Matter

The embodiment encompassed by independent Claim 10 relates to a method of modifying an entry in a security association database (116, 118, 702) in a system having multiple security channels (802) (FIGS. 1, 7, 8). The method associated with each channel includes requesting access to a predetermined address location in the security association database, and assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels (pg. 13, l. 20 to pg. 14, l. 16; pg. 16, ll. 5-9; FIGS. 8 and 9). The security association data structure is retrieved from the predetermined address location when, based on the weight value assigned to the request, the channel has a higher priority request relative to the other security channel requests (pg. 14, ll. 17-25; pg. 16, ll. 9-12; FIGS. 8 and 9). The retrieved security association data structure is modified, and the modified security association data structure is written to the predetermined address location in the security association database (pg. 15, ll. 4-12; pg. 16, ll. 12-20; FIGS. 8 and 9).

The embodiment encompassed by independent Claim 18 also relates to a method of modifying an entry in a security association database (116, 118, 702) in a

system having multiple security channels (802) (FIGS. 1, 7, 8). The method associated with each channel includes requesting access to a predetermined address location in the security association database, and assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels (pg. 13, l. 20 to pg. 14, l. 16; pg. 16, ll. 5-9; FIGS. 8 and 9). The security association data structure is retrieved from the predetermined address location when, based on the weight value assigned to the request, the channel has a higher priority request relative to the other security channel requests (pg. 14, ll. 17-25; pg. 16, ll. 9-12; FIGS. 8 and 9). The retrieved security association data structure is modified, a determination is made as to whether a write buffer is busy, and the modified security association data structure is written to the write buffer when it is not busy (pg. 15, ll. 4-12; pg. 16, ll. 12-20; FIGS. 8 and 9). The modified security association data structure is written to the predetermined address location in the security association database from the write buffer (pg. 15, ll. 4-12; pg. 16, ll. 12-20; FIGS. 8 and 9).

The embodiment encompassed by independent Claim 35 relates to a computer-readable medium containing computer executable code for instructing one or more security channels in a computer system having multiple security channels to modify an entry in a security association database. The instructions include requesting access to a predetermined address location in the security association database, and assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels (pg. 13, l. 20 to pg. 14, l. 16; pg. 16, ll. 5-9; FIGS. 8 and 9). The security association data structure is retrieved from the predetermined address location when, based on the weight value assigned to the request, no other security channel has a higher priority to do so (pg. 14, ll. 17-25; pg. 16, ll. 9-12; FIGS. 8 and 9). The retrieved security association data structure is modified, and the modified security association data structure is written to the predetermined address location in the security association database (pg. 15, ll. 4-12; pg. 16, ll. 12-20; FIGS. 8 and 9).

VII. Grounds of Rejection to be Reviewed on Appeal

The grounds of rejection to be reviewed in this appeal are as follows:

1. Claims 10-14, 16, 17 and 35 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent Publication Nos. 2003/0126233 (Bryers et al.) and 2002/0002618 (Vange).
2. Claims 15 and 18 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over (Bryers et al.) (Vange), and U.S. Patent No. 5,948,080 (Baker).

VIII. Arguments

- I. CLAIMS 10-14, 16, 17 AND 35 ARE NOT UNPATENTABLE UNDER 35 U.S.C. § 103 OVER BRYERS ET AL. AND VANGE.

In the final Office Action dated May 19, 2006, Claims 10-14, 16, 17, and 35 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Bryers et al. and Vange. As will be explained in more detail herein below, this rejection is not tenable at least because elements recited in independent Claims 10 and 35 are not found in either of the cited references.

- A. Bryers et al.

Bryers et al. relates to a system and method for controlling a content services aggregator and discloses, at various portions of the disclosure, the known method of retrieving an SA data structure, modifying the SA data structure, and writing the modified SA data structure to the SAD. Indeed, Bryers et al. discloses what Applicants disclose in the background portion of the instant application. Although the Office Action alleges that Bryers et al. in paragraphs [0178] - [0183], discloses assigning a weight value to a request based on a sequential order of the request relative to access requests to the same SAD address location made by other channels, this is simply not the case. Rather, what Bryers et al. discloses in these paragraphs is how their invention determines a set of distributed target bandwidths for a plurality of traffic classes, to thereby allow the content aggregator to provide

bandwidth guarantees for the system as a whole. Traffic classes are predefined, and when packets arrive each is classified to determine in which traffic class it belongs.

B. Vange

Vange relates to a method for serving web pages from multiple cooperating web servers, in a coordinated fashion. The Office Action alleges that Vange, in paragraphs [0037] - [0039], teaches prioritizing data traffic over a shared connection, including assigning a priority value to the request. However, what Vange teaches is a method of assigning priority to clients, such that a client with a higher assigned priority will always get access over one with a lower priority.

C. Analysis

The Examiner bears the initial burden of establishing a *prima facie* case of obviousness. In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988). Indeed, the Examiner has the burden of setting forth a detailed evidentiary basis for the teaching, suggestion or motivation to combine the cited references. As the Court of Appeals for the Federal Circuit has repeatedly stated, the factual inquiry of whether to combine references must be thorough and searching, and must be based upon the objective evidence of record. In re Sang Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). Moreover, a claim cannot be found *prima facie* obvious unless all the elements of the claim are suggested in the cited art. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974); In re Wilson, 424 F.2d 1382, 1385 (C.C.P.A. 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art."). Just because a prior art reference *can* be modified does not render the proposed modification obvious unless the prior art suggests the desirability of making the proposed modification. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Appellants submit that the Examiner has not met his burden, since the references do not suggest all of the claim elements.

Independent Claims 10, 18, and 35 each relate to methods, or a computer-readable medium containing code that causes a computer to implement a method, of modifying an entry in a security association database in a system having a plurality of channels. The claimed methods each include retrieving a security association data structure from a predetermined address location, modifying the retrieved security

association data structure, and writing the modified security association data structure to the predetermined address location in the security association database, and each of the independent claims recites, *inter alia*, requesting access to a predetermined address location in the security association database assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels. Moreover, each of the independent claims makes clear that the security association data structure is retrieved from the predetermined address location when, based on the weight value assigned to the request, the requesting channel has the highest priority.

From the above description of Bryers et al., it is clear that this reference teaches a method of assignment of bandwidth to individual packet flows. This disclosed methodology has nothing to do with the relative sequential order of a request. Moreover, what Vange teaches is a method of assigning priority to clients, such that a client with a higher assigned priority will always get access over one with a lower priority. The disclosed method does not vary access to all clients. The priority that is assigned to a client is not based on a sequential order of a request relative to that of other clients/channels.

It is thus clear that Bryers et al. and Vange fail to disclose, or even remotely suggest, both individually and in combination, at least the above-noted feature of independent Claims 10, 18, and 35. Namely, these references fail to disclose or suggest at least assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels.

In view of the foregoing, Appellant submits that independent Claims 10 and 35 are not obvious over Bryers et al. and Vange. Moreover, because independent Claim 10 is nonobvious, then dependent Claims 11-14, 16, and 17 are also nonobvious. In re Fine, supra.

II. CLAIMS 15 AND 18 ARE NOT UNPATENTABLE UNDER 35 U.S.C. § 103 OVER BRYERS ET AL., VANGE, AND BAKER.

In the Office Action dated May 19, 2006, Claims 15 and 18 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Bryers et al., Vange, and Baker. As will be explained in more detail herein below, this rejection is not tenable at least because elements recited in independent Claims 10 and 18 are not found in either of the cited references.

A. Bryers et al.

Bryers et al. was described above, and will therefore not be described further.

B. Vange

Vange was described above, and will therefore not be described further.

C. Baker

Baker relates to a method for assigning a channel number to received data packets according to a predetermined priority.

D. Analysis

Similar to independent Claims 10 and 35, independent Claim 18 recites that the security association data structure is retrieved from the predetermined address location when, based on the weight value assigned to the request, the requesting channel has the highest priority.

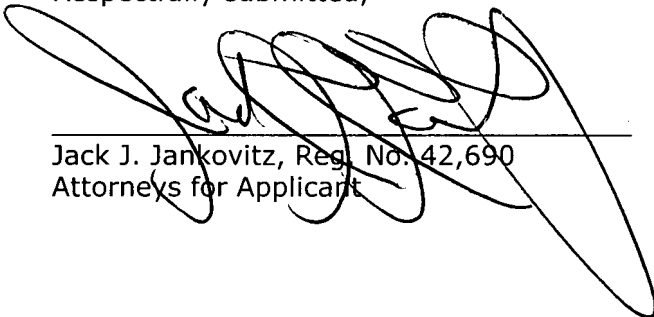
Baker was cited as allegedly teaching the step of determining whether a write buffer is busy. However, Appellant submits that this reference fails to make up for at least the above noted deficiencies of Bryers et al. and Vange with respect to independent Claims 10 and 35, which is also recited in dependent Claim 15 and independent Claim 18.

In view of the foregoing, Appellant submits that dependent Claim 15 and independent Claim 18 are not obvious over Bryers et al., Vange, and Baker et al.

IX. Conclusion

In view of the foregoing, Appellant submits that the rejection of Claims 10-18 and 35 is improper and should not be sustained. Therefore, a reversal of the rejections in the Office Action dated May 19, 2006, is respectfully requested.

Respectfully submitted,



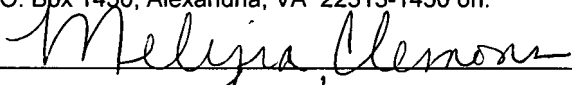
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X. Claims Appendix

Claims on Appeal

10. In a system having multiple security channels, a method of modifying an entry in a security association database, the method associated with each channel comprising:

requesting access to a predetermined address location in the security association database;

assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels;

retrieving the security association data structure from the predetermined address location when, based on the weight value assigned to the request, the channel has a higher priority request relative to the other security channel requests;

modifying the retrieved security association data structure; and

writing the modified security association data structure to the predetermined address location in the security association database.

11. The method of Claim 10, wherein the step of requesting access comprises setting a request bit in a control register.

12. The method of Claim 10, wherein the security association data structure is retrieved in response to setting a grant bit in the control register.

13. The method of Claim 10, wherein the step of writing the modified security association data structure to the predetermined address location comprises:

writing the modified security association data structure of to a write buffer prior to writing it to the predetermined address location; and

writing the modified security association data structure to the predetermined address from the write buffer.

14. The method of Claim 13, wherein the step of requesting access comprises setting a request bit in a control register, and wherein the method further comprises:

resetting the request bit prior to writing the modified security association data structure to the predetermined address location from the write buffer.

15. The method of Claim 13, further comprising:

determining whether the write buffer is busy prior to writing the modified security association data structure thereto.

16. The method of Claim 10, further comprising:

storing the retrieved security association data structure in a local memory;
and

modifying the retrieved security association data structure.

17. The method of Claim 10, further comprising:

storing the predetermined address location of the retrieved security association data structure in a register.

18. In a system having multiple security channels, a method of modifying an entry in a security association database, the method associated with each channel comprising:

requesting access to a predetermined address location in the security association database;

assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels;

retrieving the security association data structure from the predetermined address location when, based on the weight value assigned to the request, the channel has a higher priority request relative to the other security channel requests;

modifying the retrieved security association data structure;

determining whether a write buffer is busy;

writing the modified security association data structure to the write buffer when it is not busy and

writing the modified security association data structure to the predetermined address location in the security association database from the write buffer.

35. A computer-readable medium containing computer executable code for instructing one or more security channels in a computer system having multiple security channels to modify an entry in a security association database, the instructions comprising:

requesting access to a predetermined address location in the security association database;

assigning a weight value to the request based on a sequential order of the request relative to access requests to the predetermined address location made by other of the security channels;

retrieving the security association data structure from the predetermined address location when, based on the weight value assigned to the request, no other security channel has a higher priority to do so;

modifying the retrieved security association data structure; and

writing the modified security association data structure to the predetermined address location in the security association database.

XI. Evidence Appendix

No evidence pursuant to 37 C.F.R. §§ 1.130, 1.131, or 1.132 has been entered by the Examiner or relied upon by Appellant in the instant appeal beyond that which is already contained in the as-filed application, as is delineated in the Arguments section of the Brief.

XII. Related Proceedings Appendix

As there are no related appeals and interferences, there are also no decisions rendered by a court or the Board of Patent Appeals and Interferences that are related to the instant appeal.